



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,966	09/25/2003	Tae Ho Kim	2080-3-170	7029
2292 7590 01/11/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
LU'ONG, ALAN H				
ART UNIT		PAPER NUMBER		
4126				
NOTIFICATION DATE		DELIVERY MODE		
01/11/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

## Office Action Summary

**Application No.**

10/670,966

**Applicant(s)**

KIM ET AL.

**Examiner**

ALAN LUONG

**Art Unit**

4126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-30 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 9/25/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date April 29, 2005  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Inventor's Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This is the initial Office Action based on the 10/670966 application filed on Sept 25, 2003.  
Claim 1-30, as originally filed, are currently pending and have been consider below.

#### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - a. On ¶0032, line 5 of the specification (see PG Publication 20040057699) recites "server 30" which appears to be a misspelling of the word "server 300".
  - b. On ¶0035, line 6 of the specification (see PG Publication 20040057699) recites "form" which appears to be a misspelling of the word "from".

Appropriate correction is required.

#### ***Drawings***

2. The drawings are objected to because in FIG. 4, State 7 and 8 cite " DVD play" and " DVD still" respectively which should be " DVD play & ENAV stop" and " DVD still & ENAV stop" as be disclosed in ¶0047, line 4 and ¶0048, line 5 of specification (see PG Publication 20040057699), respectively. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as

"amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claim 4 is objected to because of the following informalities: At line 3 of the claim recites "data data" which should be "data" Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **1-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No.2003/0021593 A1 (Hereafter US'593) published by Otsuka et al.; in view of US Patent No. 6,138,175 (Hereafter US'175) issued by deCarmo.

**Regarding to claim 1:** Otsuka discloses a method of controlling a playback operation in an enhanced navigation media player device (controlling the operations mode of an optical disc player between a user agent mode and a video playback mode, see Abstract of US) the method comprising:

defining an operating state (e.g. play state) based on coexisting operation modes(a user agent mode and video playback mode) the enhanced navigation media player device ( an optical disc player 100), wherein in a first operation mode( video playback mode) the device is configured to reproduce audio/video (A/V) data recorded on an enhanced navigation medium (116)(see figure 1 and paragraph 0017);

and in a second operation mode the device (a user agent mode) is configured to process additional data recorded on an enhanced navigation medium or provided from a remote content provider (the user agent menu or the HTML menu stored in the enhanced navigation medium(116) for controlling the playback mode)(see figure 1-2B and paragraphs 0017-0019);

operating the device in operating state, in response to user interfacing with the device to select operating state (a displaying device 200 coupled to the video/audio device interface 112 displaying a frame of a video content in video playback mode and a displaying device 250 coupled to the video/audio device interface 112 displaying a

website document (e.g. an HTML document) in user agent mode. As customary, the website document may include information, pictures, and links to other website documents, see FIG. 2A, 2B, ¶0018, ¶0019).

However, Otsuka fails to teach a plurality of operating states on a second operation mode.

In the same DVD playback field, deCarmo teaches a navigation engine (206 of FIG.2) which control DVD player with plurality of operating states(e.g. Set, GoTo, Link, Jump or Compare) on operation mode(navigation mode) and operating the device in at least one of the plurality of second operating states (the specific navigational commands which are recognized by a DVD player are controlled by a device independent language and a set of DVD player parameters which define the current state of the DVD player(see figures 2-6B; abstract; column 2, lines 36-42; column 3, lines 35-50; column 7, lines 34-67 and column 8, lines 1-8), It would have been obvious to have modified Otsuka with the teaching of deCarmo, thereby accelerate the system playback operation(see column 8, lines 3-5).

**Regarding to claims 2-5:** In the method of claim 1 above, Otsuka as modified by deCarmo discloses a combination engine (218 of deCarmo's FIG. 3) wherein the plurality of operating states comprise at least one of N operating states based on the first and second operational modes wherein the first operational mode has X playback states (execution unit A) associated with reproducing A/V data recorded on the enhanced navigation medium and the second operational mode has Y operation states (execution unit B) associated with processing additional data recorded on an enhanced

Art Unit: 2629

navigation medium or provided by the remote content provider, wherein  $N = X \times Y$  (parallelization engine 220).(see US'175, col. 6 line 63 to col.8 line 7).

**Regarding to claim 6:** In the method of claim 3 above, Otsuka also discloses the first operational mode comprises a play state associated with reproduction of the A/V data.(In this mode, the displaying device 200 displays full screen video as would a standard DVD player. Thus, in video playback mode, the optical disc player 100 of the invention operates as a standard DVD player; see FIG. 2A and ¶¶0018 and ¶ 0046-0052).

**Regarding to claim 7:** In the method of claim 4, deCarmo discloses the second operational mode (navigation engine) comprises play, Set or Jump states associated with processing of the additional data (step 602 where the parallelization engine 220 retrieves a command N), (step 606 where the next command, command N+1, is retrieved from the storage unit 216); (step 614, where it is determined whether command N+2 is a Set command. If command N+2 is a Set command, the process proceeds from step 614 to step 616 where it is determined whether command N+2 can operate in parallel with command N).(See FIGs 6A-6B; column 2, lines 35-43 and col. 10 line 19-col. 11 line 10).

**Regarding to claim 8:** In the method of claim 1, Otsuka discloses wherein if the first operational mode is in a play state and the second operational mode is in a play state, then the device plays back A/V data from the enhanced navigation medium and the device displays additional data received from the enhanced navigation medium or

the remote content provider in association with the A/V data.( the DISPLAY\_MODE display\_mode variable specifies the display mode of the optical disc player 100; If the DISPLAY\_MODE display\_mode value is DISPLAY\_PIC\_IN\_PIC, then the displaying device coupled to the video/audio device interface 112 displays video playback mode and/or user agent mode in picture-in-picture format; see ¶0055, ¶0056).

**Regarding to claim 9:** In the method of claim 1, Otsuka discloses wherein if the first operational mode is in a still state and the second operational mode is in a play state, then the device temporarily discontinues playing back A/V data and the device displays a still picture of a last A/V data frame reproduced along with additional data received from the enhanced navigation medium or the remote content provider in association with the A/V data. (the DISPLAY\_MODE display\_mode variable specifies the display mode of the optical disc player 100, If the DISPLAY\_MODE display\_mode value is DISPLAY\_WEB\_IN\_WINDOW, then the displaying device coupled to the video/audio device interface 112 displays the user agent menu in a window over the video playback menu; see ¶0056).

**Regarding to claims 10, 11:** In the method of claim 1, Otsuka discloses wherein if the first operational mode is in a stop state and the second operational mode is in a play state, then the device discontinues playing back A/V data and the device displays additional data received from the enhanced navigation medium or the remote content provider in association with the A/V data and the device displays the additional data in full screen mode and no A/V data is displayed ( the DISPLAY\_MODE display\_mode



variable specifies the display mode of the optical disc player 100, if the DISPLAY\_MODE display mode value is DISPLAY\_WEB\_FULLSCREEN, then the displaying device coupled to the video/audio device interface 112 displays the full screen user agent menu; see ¶0056) .

**Regarding to claims 12-14, 18 and 19:** In the method of claim 1, Otsuka discloses wherein if the first operational mode is in a play state and the second operational mode is in an idle state, then the device plays back the A/V data and the device temporarily discontinues receiving additional data from the enhanced navigation medium or the remote content provider in association with the A/V data and the device plays back A/V data in full screen mode.

(the DISPLAY\_MODE display\_mode variable specifies the display mode of the optical disc player 100, if the DISPLAY\_MODE display mode value is DISPLAY\_VID\_FULLSCREEN, then the displaying device coupled to the video/audio device interface 112 displays the full screen video playback menu; see ¶0056).

**Regarding to claims 15 and 16 :** In the method of claim 1, Otsuka discloses wherein if the first operational mode is in a still state and the second operational mode is in an idle state, then the device temporarily discontinues playing back the A/V data and the device temporarily discontinues receiving additional data from the enhanced navigation medium or the remote content provider in association with the A/V data and the device displays a still image of the last A/V data displayed.

(the DISPLAY\_MODE display\_mode variable specifies the display mode of the optical disc player 100, if the DISPLAY\_MODE display mode value is DISPLAY VID\_IN WINDOW, then the displaying device coupled to the video/audio device interface 112 displays the video playback menu over the user agent menu; see ¶[0056]).

**Regarding to claim 17:** In the method of claim 1, Otsuka discloses wherein if the first operational mode is in a stop state and the second operational mode is in an idle state, then the device discontinues playing back the A/V data and the device temporarily discontinues receiving additional data from the enhanced navigation medium or the remote content provider in association with the A/V data (DISPLAY\_MODE display\_mode variable specifies the display mode of the optical disc player 100; If the DISPLAY\_MODE display\_mode value is DISPLAY\_WEB\_IN\_WINDOW, then the displaying device coupled to the video/audio device interface 112 displays the user agent menu in a window over the video playback menu; see ¶[0056]).

**Regarding to claim 20:** In the method of claim 1, Otsuka discloses wherein if the first operational mode is in a pause state and the second operational mode is in a stop state, then the device temporarily discontinues playing back the A/V data and the device discontinues receiving additional data from the enhanced navigation medium or the remote content provider in association with the A/V data. (the DISPLAY\_MODE display\_mode variable specifies the display mode of the optical disc player 100; If the DISPLAY\_MODE display\_mode value is DISPLAY VID\_IN WINDOW, then the

displaying device coupled to the video/audio device interface 112 displays the video playback menu over the user agent menu; see ¶0056 )

**Regarding to claim 21:** In the method of claim 1 above, Otsuka teaches the operations 300 of the optical disc player 100 as a result of the execution of the various functions which associate with the DISPLAY\_MODE display\_mode variable, the first operational mode is in a stop state and the second operational mode is in a stop state, then the device discontinues playing back the A/V data; it would have been obvious the displaying device could not coupled to the video/audio device interface 112 displays the full screen playback menu and the device discontinues receiving additional data from the enhanced navigation medium or the remote content provider in association with the A/V data; then it has been obvious the displaying device could not coupled to the video/audio device interface 112 displays the full screen user agent menu. (See ¶0056).

**Regarding to claim 22:** see the discussion of Otsuka and deCarmo above. Otsuka teaches an optical disc player (100 of FIG. 1) (an enhanced navigation media player device) comprising: the enhanced navigation engine, wherein in response to user interaction, in a first operation mode the playback engine reproduces audio/video (A/V) data recorded on an enhanced navigation medium (See ¶ 0017 lines 7-12) and in a second operation mode the enhance navigation engine processes additional data readout from the enhanced navigation medium or downloaded from a remote content provider ( FIG. 2B and ¶0017-0019 ).

**Regarding to claim 23:** In the player of claim 22 above, Otsuka as modified teaches wherein the plurality of operating states comprise at least one of N operating states based on said first and second operational modes associated with said playback and enhanced navigation engines, respectively (a flow diagram of the operations 300 of the optical disc player 100 as a result of the execution of the various functions described in step 302 to 316 of FIG. 3; see ¶0041 to ¶0043).

**Regarding to claim 24:** In the method of claim 23 above, Otsuka also teaches wherein the first operational mode of playback engine has X playback states associated with reproducing A/V data recorded on the enhanced navigation medium. (the DISPLAY\_MODE display\_mode variable specifies the display mode of the optical disc player 100. The following is an exemplary definition of the DISPLAY\_MODE display\_mode variable:

DISPLAY\_PIC\_IN\_PIC (Play\_playback state, enable the user agent state)

DISPLAY\_VID\_IN\_WINDOW (Still\_playback state, enable the user agent state)

DISPLAY\_VID\_FULLSCREEN (Play\_playback state alone, disable the user state); see ¶0055, ¶0056).

**Regarding to claim 25:** On the player of claim 24, Otsuka also teaches wherein in the second operational mode the enhance navigation engine has Y operation states associated with processing additional data readout from the enhanced navigation medium or downloaded from the remote content provider. (the DISPLAY\_MODE display\_mode variable specifies the display mode of the optical disc player 100. The following is an exemplary definition of the DISPLAY\_MODE display\_mode variable:

Art Unit: 2629

DISPLAY\_WEB\_FULLSCREEN (Playback mode\_stop; user agent mode active)

DISPLAY\_WEB\_IN\_WINDOW (Playback mode\_still; user agent mode active), Browser in small window over DVD.

DISPLAY VID\_IN WINDOW (Playback \_Still; user agent mode \_disabled), Video in a small window over browser; see ¶0055, ¶0056).

**Regarding to claim 26:** In the player of claim 25, Otsuka also teaches wherein  $N = X \times Y$  ( the DISPLAY\_MODE display\_mode variable specifies the display mode of the optical disc player 100 as product of functions of 2 operation modes; see ¶0055 and ¶0056).

**Regarding to claim 27:** In the method of claim 24 above, Otsuka also teaches wherein the first operational mode comprises at least one of play, still and stop playback states associated with reproduction of the A/V data (the optical disc player 100 of the invention operates as a standard DVD player in video playback mode. In this case, the video playback menu controls the playback of the video content stored on the local optical disc 116. This is to allow compatibility with standard DVD players; (see ¶0018 FIG. 2A). It would have been obvious the standard DVD player can execute commands as Play, Pause or Stop from a remote control as an user control interface (114 of FIG. 1)

**Regarding to claim 28:** In the method of claim 25 above, Otsuka further teaches a displaying device 250 coupled to the video/audio device interface 112 displaying a website document (e.g. an HTML document) in user agent mode (the second operational mode) the website document may include information, pictures, and

links to other website documents. In addition, the website document may include a frame window for displaying the video content stored on the local optical disc 116. In this case, the HTML menu controls the playback of the video content stored on the local optical disc 116; see FIG. 2B and ¶0019 (comprises at least one of play, idle, and stop display states associated with processing of the additional data).

**Regarding to claim 29:** Otsuka also teaches a method for controlling playback of an enhanced navigation medium (data recorded on the local optical disc 116 of FIG. 1), the method comprising:

initializing at least a first playback engine of an enhanced navigation device, when an enhanced navigation mode is selected (In step 302, the optical disc player 100 is initialized by turning it on. Upon start-up, the processor 102 loads an initial operating system program stored in the non-volatile memory 108. The processor 102 under the control of the operating system detects when there is a local optical disc 116 present in the optical disc reading device 104, see FIG. 3, ¶0041 lines 1-9)

entering a first playback state for at least the first playback engine, when an enhanced navigation engine preloads navigation information (Step 304; the processor 102 under the control of the operating system checks whether the local optical disc 116 has a certain startup file (e.g. DVDP.INF) that identifies a start-up interactive program (e.g. an HTML file). If the startup file is present, the processor 102 under the control of the operating system loads a program interpreter from non-volatile memory 108 to read and execute the start-up interactive program ¶0041 lines 9-20); and

controlling media playback operations, in response to user interaction with a user interface of the enhanced navigation device (In step 306, if the program interpreter reads the bool ForceMode (int mode) function from the start-up interactive program on the local optical disc 116, the processor 102 under the control of the program interpreter disables the user control interface 114 to prevent a user from changing the operations mode of the optical disc player 100. If in step 306 the program interpreter reads the bool SwitchMode (int mode), in step 308 the processor 102 under the control of the program interpreter enables the user control interface 114 to allow a user to change the operations mode of the optical disc player 100; see ¶0042)

wherein the enhanced navigation engine controls a plurality of playback states based on the user interaction with a plurality of user interfaces of the enhanced navigation device (in step 310, the processor 102 under the control of the program interpreter determines the operations mode of the optical disc player 100 specified in the mode variable. If the specified mode is video mode, in step 312 the processor 102 under the control of the program interpreter activates the video playback program which displays the appropriate video on the displaying device. If the specified mode is the user agent mode, in step 314 the processor 102 under the control of the program interpreter activates the user agent program which displays the appropriate HTML menu, and disables the video menu. In step 316, a user can use the HTML menu to perform web related function, such as retrieving a web document from a network coupled to the network interface 110 or a web document stored on the local optical disc 116; see ¶0043).

**Regarding to claim 30:** Otsuka teaches wherein the first playback state is a stop state (the operations 400 of the optical disc player 100 when the user control interface 114 is activated by a user; see FIG. 4, step 402 as an initializing step; also see ¶0044).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. US 20040181816 A1 published by Kim, Ki Won et Al. disclose "Method for processing connection request of a disk player."

B. US 2004/0175154 A1 published by Yoon et al.; disclose " Method for setting playback environment of an interactive disk."

C. US 2001/0038743 A1 published by Murata, Mitsuhiro discloses "DVD video player"

D. US 7,254,825 issued by Sharples et al. disclose "Method and device with DVD and HTML control environments"

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN LUONG whose telephone number is (571) 270-5091. The examiner can normally be reached on Mon.-Thurs., 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Chow can be reached on (571) 272-7767. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alan H. Luong/  
Art Unit 4126  
Date 11/15/2007.

/Lun-Yi Lao/  
Primary Examiner, Art Unit 2629